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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/766,603	01/27/2004	Robert Gregory Wagoner	03GP9129	3390

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EXAMINER

CAVALLARI, DANIEL J

ART UNIT	PAPER NUMBER
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2836

MAIL DATE	DELIVERY MODE
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10/09/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/766,603

Applicant(s)

WAGONER ET AL.

Examiner

Daniel J. Cavallari

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 August 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☒ Claim(s) 11-16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

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DETAILED ACTION

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/20/2007 has been entered.

Response to Arguments

Applicant's arguments with respect to claims 11-16 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11-13 & 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kojima (JP 06189469 A) in view of Kageyama (US 5,612,581).

In regard to Claim 11

Kojima teaches:

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- A first contactor (2A) having an input selectively coupled to a first power converter (3A,4A) (See Figure 4).
- A second contactor (2B) having an input selectively coupled to a second power converter (3B, 4B) (See Figure 4).
- A controlled current path (8A-C) coupled to the output of the first and second contactor and to a load (10) for providing uninterrupted power to the load during a transfer between first and second power converters (See Abstract).

Kojima teaches a plurality of batteries, each coupled to the converter but fails to teach a single battery coupled to the first and second converters using diodes.

Kageyama teaches a power supply system incorporating parallel converters wherein a single diode connected battery is used to supply backup power to the plurality of converter circuits instead of each converter having there own battery (See Figure 6).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate a single battery into the power supply system of Kojima as taught by Kageyama instead of providing each converter with its own battery. The motivation would have been to reduce the size and cost of the converter by replacing the multiplicity of batteries with a single battery.

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Kojima further teaches:

In regard to Claim 12

- The first and second contactors comprising a pair of contactors, read on by 7A & 7B (See Figure 4).

In regard to Claim 13

- The first and second contactors (2A, 7A & 2B, 7B) being separate contactors.

In regard to Claim 16

Incorporating all arguments above, Kojima fails to teach capacitors on the DC buses of the converters.

Kageyama teaches capacitors on the DC buses of the converters (See Figure 4). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the capacitors on the DC converter bus as taught by Kageyama into the power supply system of Kojima since it is well known in the art that such capacitors are beneficial in smoothing and filtering the DC power providing a cleaner signal at the output.

Claims 14 & 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kojima in view of Kageyama and Heebner (US 5,353,665).

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Kojima teaches the use of a contactor (2A, 2B) (See Figure 4 & Abstract) but fails to explicitly teach the type of contactor used.

Heebner teaches the use of a multi-pole break before make type relay for use of power delivery and further explains that "Most relays are multi-pole break before make type..." (See Column 5, Lines 15-30).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the multi pole make break before make relay in place of the contactors taught by Kojima who fails to explicitly teach the type of contactors used. The motivation would have been to use a switch that is well known in the art and readily available.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Cavallari whose telephone number is (571)272-8541. The examiner can normally be reached on Monday-Friday 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Sherry can be reached on (571)272-2800 x36. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Daniel Cavallari

September 26, 2007

A handwritten signature in black ink, appearing to read "MS 9/29/07".

MICHAEL SHERRY
SUPERVISORY PATENT EXAMINER